NOTIFICATION OF ADDENDUM

ADDENDUM NO. 2

DATED 7/29/2013

Control	**2079-01-041**
Project	**STP 2013(901)**
Highway	**FM 1220**
County	**TARRANT**

Ladies/Gentlemen:

Attached please find an addendum on the above captioned project. Included in the attachment is an adendum notification which details the changes and the respective proposal pages which were added and/ or changed.

Except for new bid insert pages, it is unnecessary to return any of the pages attached.

Bid insert pages must be returned with the bid proposal submitted to the Department, unless your firm is submitting a bid using a computer print out. The computer print out must be changed to reflect the new bid item information.

Contractors and material suppliers, etc. who have previously been furnished informational proposals are not being furnished a copy of the addendum. If you have a subcontractor on the above project, please advise them of this addendum. Acknowledgment of this addendum is not requested if your company has been issued a proposal stamped “This Proposal Issued for Informational Purposes.”

You are required to acknowledge receipt of this addendum on the Addendum Acknowledgement form contained in your bid proposal by placing a mark in the box next to the respective addendum.

Failure to Acknowledge receipt of this addendum in your bid proposal will result in your bid not being read.

04/99

SUBJECT: PLANS AND PROPOSAL ADDENDUMS
PROJECT: STP 2013(901) CONTROL: 2079-01-041
COUNTY: TARRANT
LETTING: 08/06/2013
REFERENCE NO: 0726

PROPOSAL ADDENDUMS

_ PROPOSAL COVER
X BID INSERTS (SH. NO.: 2-11 - 3-11, 4-11 - 11-11)
X GENERAL NOTES (SH. NO.: J)
X SPEC LIST (SH. NO.: 2-4 -4-4)
_ SPECIAL PROVISIONS:
ADDED:

DELETED:

_ SPECIAL SPECIFICATIONS:
ADDED:

DELETED:

X OTHER: See changes outlined below.

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

id Inserts:
Sheet 2-11: Item 432-2037 quantity change.
Sheet 3-11: Item 462-2032 quantity change.
Sheet 4-11: Item 466-2328 added.
Sheet 10-11: Item 677-2001 added.
Sheets 4-11 - 11-11 Information may have shifted due to the changes above.
General notes:
Sheet J: Note for item 354 is revised.
Spec list:
Sheet 2-4: Standard Specification 677 is added.
Sheets 2-4 - 4-4 Information may have shifted due to the changes above.
Plan Set:
The following sheets are replaced:
13D, 14, 14A - 14B, 15 - 16, 33 - 34, 183

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	100	2002	002	PREPARING ROW DOLLARS and CENTS	STA	152.000	1
	110	2001		EXCAVATION (ROADWAY) DOLLARS and CENTS	CY	15,778.000	2
	132	2008		EMBANKMENT (FINAL)(DENS CONT)(TY D) DOLLARS and CENTS	CY	12,035.000	3
	161	2014	006	COMPOST MANUF TOPSOIL (BOS OR PB) (4") DOLLARS and CENTS	SY	78,939.000	4
	164	2009	002	BROADCAST SEED (TEMP) (WARM) DOLLARS and CENTS	SY	19,737.000	5
	164	2011	002	BROADCAST SEED (TEMP) (COOL) DOLLARS and CENTS	SY	19,737.000	6
	164	2027	002	CELL FBR MLCH SEED(PERM)(URBAN)(CLAY) DOLLARS and CENTS	SY	78,939.000	7
	168	2001		VEGETATIVE WATERING DOLLARS and CENTS	MG	212.600	8
	260	2006	003	LIME TRT (EXST MATL) (6") DOLLARS and CENTS	SY	38,355.000	9
	260	2016	003	LIME (HYD, COM, OR QK(SLURRY)) DOLLARS and CENTS	TON	478.000	10

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	310	2005		PRIME COAT (MC-30 OR AE-P) DOLLARS and CENTS	GAL	7,671.000	11
	351	2006		FLEXIBLE PAVEMENT STRUCTURE REPAIR(10") DOLLARS and CENTS	SY	800.000	12
	354	2023		PLANE ASPH CONC PAV(0" TO 4") DOLLARS and CENTS	SY	724.000	13
	403	2001		TEMPORARY SPL SHORING DOLLARS and CENTS	SF	2,862.000	14
	416	2029	001	DRILL SHAFT (RDWY ILL POLE) (30 IN) DOLLARS and CENTS	LF	8.000	15
	432	2002		RIPRAP (CONC)(5 IN) DOLLARS and CENTS	CY	589.000	16
	432	2037		RIPRAP (STONE TY R)(DRY)(18 IN) DOLLARS and CENTS	CY	2,159.000	17
	432	2038		RIPRAP (CONC) (CL A) DOLLARS and CENTS	CY	.500	18
	432	2040		RIPRAP (MOW STRIP)(5 IN) DOLLARS and CENTS	CY	275.000	19
	432	2066		RIPRAP (CONC)(CL B) DOLLARS and CENTS	CY	4.110	20

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	459	2002		GABIONS (GALV) DOLLARS and CENTS	CY	24.000	21
	462	2003	015	CONC BOX CULV (4 FT X 2 FT) DOLLARS and CENTS	LF	18.000	22
	462	2007	015	CONC BOX CULV (5 FT X 3 FT) DOLLARS and CENTS	LF	27.000	23
	462	2020	015	CONC BOX CULV (8 FT X 5 FT) DOLLARS and CENTS	LF	14.000	24
	462	2032	015	CONC BOX CULV (10 FT X 8 FT) DOLLARS and CENTS	LF	36.000	25
	462	2034	015	CONC BOX CULV (10 FT X 10 FT) DOLLARS and CENTS	LF	14.000	26
	462	2118	015	CONC BOX CULV (11FT X 12FT) DOLLARS and CENTS	LF	34.000	27
	464	2003	006	RC PIPE (CL III)(18 IN) DOLLARS and CENTS	LF	62.000	28
	464	2005	006	RC PIPE (CL III)(24 IN) DOLLARS and CENTS	LF	37.000	29
	464	2035	006	RC PIPE (CL V)(18 IN) DOLLARS and CENTS	LF	719.000	30
	464	2036	006	RC PIPE (CL V)(24 IN) DOLLARS and CENTS	LF	982.000	31

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	465	2077	001	INLET (COMPL)(DROP)(TY 1) DOLLARS and CENTS	EA	1.000	32
	465	2078	001	INLET (COMPL)(DROP)(TY 1-C) DOLLARS and CENTS	EA	1.000	33
	465	2092	001	MANH (COMPL)(TY 1) DOLLARS and CENTS	EA	1.000	34
	465	2750	001	JCT BOX SPL1 DOLLARS and CENTS	EA	1.000	35
	466	2065		HEADWALL (CH-FW-0)(DIA= 24 IN) DOLLARS and CENTS	EA	1.000	36
	466	2123		HEADWALL (CH-PW-0)(DIA= 18 IN) DOLLARS and CENTS	EA	1.000	37
	466	2125		HEADWALL (CH-PW-0)(DIA= 24 IN) DOLLARS and CENTS	EA	1.000	38
	466	2138		HEADWALL (CH-PW-S)(DIA= 18 IN) DOLLARS and CENTS	EA	1.000	39
	466	2327		WINGWALL (PW-1)(HW=4 FT) DOLLARS and CENTS	EA	1.000	40
	466	2328		WINGWALL (PW-1)(HW=5 FT) DOLLARS and CENTS	EA	1.000	41
	466	2330		WINGWALL (PW-1)(HW=7 FT) DOLLARS and CENTS	EA	1.000	42

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	466	2332		WINGWALL (PW-1)(HW=9 FT) DOLLARS and CENTS	EA	2.000	43
	466	2334		WINGWALL (PW-1)(HW=11 FT) DOLLARS and CENTS	EA	3.000	44
	466	2338		WINGWALL (PW-1)(HW=15 FT) DOLLARS and CENTS	EA	2.000	45
	466	2366		WINGWALL (PW)(HW=11 FT)(MOD) DOLLARS and CENTS	EA	1.000	46
	467	2107		SET (TY I)(S= 4 FT)(HW= 3 FT)(4:1)(C) DOLLARS and CENTS	EA	2.000	47
	467	2209		SET (TY II)(18 IN)(RCP)(3:1)(C) DOLLARS and CENTS	EA	1.000	48
	467	2211		SET (TY II)(24 IN)(RCP)(3:1)(C) DOLLARS and CENTS	EA	1.000	49
	467	2286		SET (TY II)(18 IN)(RCP)(6:1)(P) DOLLARS and CENTS	EA	34.000	50
	467	2288		SET (TY II)(24 IN)(RCP)(6:1)(P) DOLLARS and CENTS	EA	40.000	51
	496	2006		REMOV STR (HEADWALL) DOLLARS and CENTS	EA	12.000	52
	500	2001	011	MOBILIZATION DOLLARS and CENTS	LS	1.000	53

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	502	2001	033	BARRICADES, SIGNS AND TRAFFIC HANDLING DOLLARS and CENTS	MO	10.000	54
	508	2002		CONSTRUCTING DETOURS DOLLARS and CENTS	SY	7,990.000	55
	512	2013	002	PORT CTB (DES SOURCE)(SNGL SLP)(TY 1) DOLLARS and CENTS	LF	3,645.000	56
	512	2040	002	PORT CTB (REMOVE)(SNGL SLP) (TY 1) DOLLARS and CENTS	LF	3,645.000	57
	529	2004		CONC CURB & GUTTER (TY II) DOLLARS and CENTS	LF	93.000	58
	530	2010	006	DRIVEWAYS (CONC) DOLLARS and CENTS	SY	673.000	59
	530	2011	006	DRIVEWAYS (ACP) DOLLARS and CENTS	SY	3,844.000	60
	531	2010		CURB RAMPS (TY 7) DOLLARS and CENTS	EA	2.000	61
	531	2015		CONC SIDEWALKS (4") DOLLARS and CENTS	SY	32.000	62
	540	2001	031	MTL W-BEAM GD FEN (TIM POST) DOLLARS and CENTS	LF	5,065.000	63

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	ITEM NO	DESC CODE	S.P. NO.				
	540	2036	031	DRIVEWAY TERMINAL ANCHOR SECTION DOLLARS and CENTS	EA	9.000	64
	540	2037	031	MTL W - BEAM GD FEN(CRT POST)(SHRT RAD) DOLLARS and CENTS	LF	257.000	65
	540	2044	031	DOWNSTREAM ANCHOR TERMI-NAL(DAT)SECTION DOLLARS and CENTS	EA	14.000	66
	544	2001		GUARDRAIL END TREATMENT (INSTALL) DOLLARS and CENTS	EA	11.000	67
	545	2049		CRASH CUSH ATTEN (INSTL)(WORK ZONE) DOLLARS and CENTS	EA	14.000	68
	545	2051		CRASH CUSH ATTEN (REMOVE)(WORK ZONE) DOLLARS and CENTS	EA	14.000	69
	560	2009	001	MAILBOX INSTALL-M (TWG-POST) TY 1 FND DOLLARS and CENTS	EA	1.000	70
	560	2015	001	MAILBOX INSTALL-S(TWW-POST)TY 4 FND-TB DOLLARS and CENTS	EA	15.000	71
	610	2064	015	RELOCATE RD IL ASM (TRANS-BASE) DOLLARS and CENTS	EA	1.000	72

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	618	2018		CONDT (PVC) (SCHD 40) (2") DOLLARS and CENTS	LF	15.000	73
	620	2011	001	ELEC CONDR (NO. 8) BARE DOLLARS and CENTS	LF	267.000	74
	620	2012	001	ELEC CONDR (NO. 8) INSULATED DOLLARS and CENTS	LF	567.000	75
	624	2012	014	GROUND BOX TY C (162911) W/APRON DOLLARS and CENTS	EA	2.000	76
	624	2034	014	REMOVE EXISTING GROUND BOXES DOLLARS and CENTS	EA	2.000	77
	644	2001		IN SM RD SN SUP&AM TY10BWG(1)SA(P) DOLLARS and CENTS	EA	17.000	78
	644	2004		IN SM RD SN SUP&AM TY10BWG(1)SA(T) DOLLARS and CENTS	EA	10.000	79
	644	2025		IN SM RD SN SUP&AM TYS80(1)SA(T) DOLLARS and CENTS	EA	9.000	80
	644	2048		IN SM RD SN SUP&AM TYTWT(1)UA(P) DOLLARS and CENTS	EA	56.000	81
	644	2060		REMOVE SM RD SN SUP & AM DOLLARS and CENTS	EA	85.000	82
	658	2241		INSTL DEL ASSM (D-SW)SZ 1(FLX)GF2(BI) DOLLARS and CENTS	EA	75.000	83

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	ITEM NO	DESC CODE	S.P. NO.				
	658	2316		INSTL OM ASSM (OM-2Z)(FLX)GND DOLLARS and CENTS	EA	11.000	84
	662	2004		WK ZN PAV MRK NON-REMOV (W) 4" (SLD) DOLLARS and CENTS	LF	60,776.000	85
	662	2016		WK ZN PAV MRK NON-REMOV (W) 24" (SLD) DOLLARS and CENTS	LF	286.000	86
	662	2032		WK ZN PAV MRK NON-REMOV (Y) 4" (SLD) DOLLARS and CENTS	LF	60,778.000	87
	666	2036		REFL PAV MRK TY I (W) 8" (SLD)(100MIL) DOLLARS and CENTS	LF	2,787.000	88
	666	2042		REFL PAV MRK TY I (W) 12"(SLD)(100MIL) DOLLARS and CENTS	LF	159.000	89
	666	2048		REFL PAV MRK TY I (W) 24"(SLD)(100MIL) DOLLARS and CENTS	LF	285.000	90
	666	2054		REFL PAV MRK TY I (W) (ARROW) (100MIL) DOLLARS and CENTS	EA	18.000	91
	666	2096		REFL PAV MRK TY I (W) (WORD) (100MIL) DOLLARS and CENTS	EA	18.000	92
	666	2269		REFL PAV MRK TY I (W)(LNDP ARW)(100MIL) DOLLARS and CENTS	EA	2.000	93
	672	2012	034	REFL PAV MRKR TY I-C DOLLARS and CENTS	EA	155.000	94

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	672	2015	034	REFL PAV MRKR TY II-A-A DOLLARS and CENTS	EA	1,817.000	95
	677	2001		ELIM EXT PAV MRK & MRKS (4") DOLLARS and CENTS	LF	60,763.000	96
	685	2001	014	INSTALL RDSD FLASH BEACON ASSEMBLY DOLLARS and CENTS	EA	2.000	97
	685	2003	014	REMOVE RDSD FLASH BEACON ASSEMBLY DOLLARS and CENTS	EA	3.000	98
	685	2004	014	INSTL RDSD FLSH BEACON ASSM(SOLAR PWRD) DOLLARS and CENTS	EA	1.000	99
	1122	2002	001	ROCK FILTER DAMS (INSTALL) (TY 2) DOLLARS and CENTS	LF	613.000	100
	1122	2003	001	ROCK FILTER DAMS (INSTALL) (TY 3) DOLLARS and CENTS	LF	137.000	101
	1122	2009	001	ROCK FILTER DAMS (REMOVE) DOLLARS and CENTS	LF	750.000	102
	1122	2016	001	CONSTRUCTION EXITS (INSTALL) (TY 1) DOLLARS and CENTS	SY	312.000	103
	1122	2019	001	CONSTRUCTION EXITS (REMOVE) DOLLARS and CENTS	SY	312.000	104

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	1122	2037	001	TEMPORARY SEDIMENT CONTROL FENCE INSTLL DOLLARS and CENTS	LF	13,466.000	105
	1122	2047	001	BIOGRD EROSN CONT LOGS (8" DIA) INSTALL DOLLARS and CENTS	LF	72.000	106
	1122	2056	001	BIODEGRADBLE EROSION CONTROL LOGS REMOV DOLLARS and CENTS	LF	72.000	107
	1122	2057	001	TEMPORARY SEDIMENT CONTROL FENCE REMOVE DOLLARS and CENTS	LF	13,466.000	108
	3268	2008		D-GR HMA TY-B PG64-22 DOLLARS and CENTS	TON	21,728.000	109
	3268	2042		D-GR HMA TY-D SAC-B PG70-22 DOLLARS and CENTS	TON	8,642.000	110
	3268	2064		D-GR HMA TY-D PG 70-22 (LEVEL-UP) DOLLARS and CENTS	TON	4,464.000	111
	6834	2002	002	PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS	EA	2.000	112
	8251	2003	005	RE PM W/RET REQ TY I(W)4"(BRK)(100MIL) DOLLARS and CENTS	LF	263.000	113

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	8251	2006	005	RE PM W/RET REQ TY I(W)4"(SLD)(100MIL) DOLLARS and CENTS	LF	30,770.000	114
	8251	2018	005	RE PM W/RET REQ TY I(Y)4"(SLD)(100MIL) DOLLARS and CENTS	LF	35,833.000	115

Project Number: STP 2013(901) **Sheet:**

County: TARRANT **Control:** 2079-01-041

Highway: FM 1220

**** Specification Data ****

Basis of Estimate
****

Item	Description	Rate	Unit
166	Fert (16-8-8)	600 lb/acre**	Ton
168	Vegetative Watering	169,400 gal/acre	MG
260	Lime (Hydrated, Commercial Or Quicklime)(Slry)	150 lb/CY	Ton
310	Asph Mat'l (MC-30, AE-P, or EC-30) (Subgrade)(Priming)	0.2 gal/SY	Gal
3268	Hot Mix (All Types)	115 lb/SY/in	Ton

** Non-Pay, for Contractor's Information Only.

Special Notes:
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Electronic files containing answered pre-letting questions and other project related design information will be placed in the following FTP site periodically.

It is the responsibility of the contractor to check this site for new information. Notices of new postings will not be sent out.

The data located in these files is for non-construction purposes only.

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Instructions for using the FTP site:

From Internet Explorer, do the following:

Go to FTP://ftp.dot.state.tx.us

Click Page>Open FTP site in Windows Explorer

Click File>Login As

Enter the Usename and password and click "Log on".

Project Number: STP 2013(901) **Sheet:**

County: TARRANT **Control:** 2079-01-041

Highway: FM 1220

……....

FTP USERNAME: ftwntaor

FTP PASSWORD: inne3uts

Access is read-only

All files in the FTP site are subject to the License Agreement shown on the FTP site.

If you wish to obtain a copy of the project plans you may do so, free of charge from the following site.

http://www.txdot.gov/business/contractors consultants/plans online.htm

Calculating, Recording and Reporting Test Data - Use appropriate TxDOT Excel templates to calculate and record all test data. These forms are available on the TxDOT website at www.dot.state.tx.us/forms/construction.htm under the "SiteManager" heading. Submit test results within 24 hours of test completion by email or CD.

Single lane closures, except as otherwise shown in the plans, will be restricted to off-peak hours as defined in the following table:

Peak Hours		Off-Peak Hours	
6 to 9 AM Monday through Friday	3 to 7 PM Monday through Friday	9AM to 3PM and 7 PM to 6 AM Monday through Friday	All day Saturday and Sunday

Work that requires closure of multiple travel lanes in the same direction, except as otherwise shown in the plans, will be performed at night between the hours of 9:00 pm and 6:00 am.

Existing storm sewers and utilities are shown from the best available information. Verify the location of all underground facilities prior to starting work.

For dimensions of R.O.W. not shown on the plans, see R.O.W. map on file at the TxDOT District Office.

Remove all existing fences within the right of way and remove and replace all existing fences within easements where such fences conflict with the work. Protect the remaining fence from

damage due to slacking. Erect temporary fencing in the easement areas as necessary to secure the property. Provide at least one week notice to the property owner prior to removing or moving the fence. Restore permanent fencing to an equal or better condition.

Provide all-weather surface for temporary ingress and egress to adjacent property, as directed. Materials, labor, equipment and incidentals necessary to provide temporary ingress and egress will not be paid for directly, but will be subsidiary to the various bid items.

In those instances where necessary, the governing slopes indicated herein may be varied from the limits shown, to the extent approved.

On superelevated curves the shoulders shall have the same cross-slope as the pavement, unless otherwise indicated.

On superelevated curves where the grade line is in a sag or on flat grades, overlay the shoulders to the extent necessary to prevent trapping of water on the high side.

All driveway openings will be determined by the Engineer and shall conform with Texas Department of Transportation "Regulations for Access Driveways to State Highways" adopted September 1953, and revised June 2004.

Take care that existing curb and curb and gutter is not discolored or damaged during construction operations. In the event of discoloration or damage, clean or repair as directed.

Locations shown for drainage structures refer to the control points of structures as follows:

1) Manholes, Inlets, and Junction Boxes -- Locations are at the centroid of the structure; when two structure types are specified, location is at the centroid of the top structure. Bottom structure may be positioned as required to align with top structure, storm drain pipes and other adjacent structures.

2) Headwalls -- Locations are to the outside face of the headwall at the centerline of the pipe or box structure. For pipe headwalls with Type "P" or "C" safety end treatment, locations are on the centerline of the pipe structure at the limit of payment for pipe.

Plugging of pipes or culverts will not be paid for directly, but shall be considered subsidiary to the various bid items, unless otherwise shown on the plans.

Provide temporary drain openings at all low points or other drainage structures, as required, at the Contractor's expense.

Remove any obstructions to existing drainage due to the contractor's operations, as required, at the Contractor's expense.

Apply all erosion control measures as shown on the plans or as directed, immediately following construction of channels to their required line, grade and section.

Proposals with a bid of more than 159 working days for the substantial completion of the project will be considered non-responsive.

For electrical and illumination materials provide as shown on the Construction Divison (CST) material producers list. Check the latest link on the Department website for this list. The category is "Roadway Illumination and Electrical Supplies." Locate all luminaires, ground boxes and conduit as directed.

Mast-arm poles may be moved a maximum of 15 feet along and parallel to the roadway to be illuminated. If a pole is moved more than 5 feet, the location of adjacent poles should also be revised, so as to maintain uniform spacing.

Where possible, conduit runs should be straight and placed with a minimum number of bends and/or ground boxes.

If the actual length of conductor in a circuit exceeds the estimated length by more than 75 feet, recalculate the voltage drop for the circuit.

The Contractor's attention is directed to all locations where illumination circuits cross existing sign light, traffic signal, surveillance, or roadway illumination circuits owned by TxDOT the Contractor will be responsible for locating any existing circuits prior to any trenching, foundation drilling or excavation. If any existing circuits are damaged by the Contractor, splice the circuits or repair the conduit and replace the conductor as directed, to ensure proper operation of the system. Complete these temporary repairs as soon as possible after damage occurs. All labor and materials required for the temporary repairs will be at the Contractor's expense. Maintain the temporary repairs until permanent repairs are made.

Permanent repairs shall consist of the replacement of damaged or temporarily repaired conduit, conductor, ground boxes, etc., as directed, and shall be constructed in accordance with the requirements of the appropriate bid items and this project for new construction.

Permanent repairs, including the placement of ground boxes, extensive conduit runs, etc. will be measured and paid for in accordance with the appropriate bid items.

Only one permanent repair per circuit run will be considered for payment.

For access into the existing electrical service, contact the Fort Worth District's Traffic Systems Supervisor (Traffic Signal Shop main phone number: 817-370-6505). Provide at least 72 hours of prior notification.

Item 5. Control of the Work

When supplementary bridge plans, shop drawings, shop details, erection drawings, working drawings, forming plans or other drawings, are required, the drawings shall be prepared and submitted on sheets 8 1/2 by 11 inches, 17 by 22 inches, or full size drawings reduced to half scale if completely legible. If, in the opinion of the Engineer, the drawings are not completely legible, they shall be prepared and submitted on sheets 22 by 34 inches, with a one and one-half inch left margin, and a one-half inch top, right, and bottom margin.

All sheets submitted shall have a title in the lower right hand corner. The title shall include the sheet index data shown on the lower right corner of the project plans, name of the structure or element or stream, sheet numbering for the shop drawings, name of the fabricator and the name of the Contractor.

Prior to contract letting, bidders may obtain a free computer diskette or a computerized transfer of files (from the Engineer's office) that contains the earthwork information in ASCII format, plain text files. If copies of the actual cross-sections are requested, in addition to, or instead of, the diskette, they will be available at the Engineers office for borrowing by copying companies for the purpose of making copies for the bidder, at the bidder's expense.

Item 7. Legal Relations and Responsibilities

Do not initiate activities in a project specific location (PSL) associated with a U.S. Army Corps of Engineers (USACE) permit area that have not been previously evaluated by the USACE as part of the permit review of this project. Such activities include, but are not limited to, haul roads, equipment staging areas, borrow and disposal sites. "Associated" as defined here means materials are delivered to or from the PSL. The permit area includes all waters of the U.S. or associated wetlands affected by activities associated with this project. Special restrictions may be required for such work. The contractor shall be responsible for any and all consultations with the USACE regarding activities, including project specific locations (PSLs) that have not been previously evaluated by the USACE. Provide the Department with a copy of all consultation(s) or approval(s) from the USACE prior to initiating activities.

The Contractor may proceed with activities in PSLs that do not affect a USACE permit area if a self determination has been made that the PSL is non-jurisdictional or proper USACE clearances have been obtained in jurisdictional areas or have been previously evaluated by the USACE as part of the permit review of this project. The contractor is solely responsible for documenting any determination(s) that their activities do not affect a USACE permit area. Maintain copies of their determination(s) for review by the Department or any regulatory agency.

Document and coordinate with the USACE, if required, prior to any excavation hauled from or embankment hauled into a USACE permit area by either (1) or (2) below.

(1) Restricted Use of Materials for Previously Evaluated Permit Areas. Document both the project specific location (PSL) and its authorization. Maintain copies for review by the Department or any regulatory agency. When an area within the project limits has been evaluated by the USACE as part of the permit process for this project:

a. Suitable excavation of required material in the areas shown on the plans and cross sections as specified in Item 110 is used for permanent or temporary fill (Item 132, Embankment) within a USACE permit area;
b. Suitable embankment (Item 132) from within the USACE permit area is used as fill within a USACE evaluated area; and,
c. Unsuitable excavation or excess excavation ["Waste"] (Item 110) that is disposed of at a location approved by the Engineer within a USACE evaluated area.

(2) Contractor Materials from Areas Other than Previously Evaluated Areas. Provide the Department with a copy of all USACE coordination or approval(s) prior to initiating any activities for an area within the project limits that has not been evaluated by the USACE or for any off right of way locations used for the following, but not limited to, haul roads, equipment staging areas, borrow and disposal sites:

a. Item 132, Embankment, used for temporary or permanent fill within a USACE permit area; and,
b. Unsuitable excavation or excess excavation ["Waste"] (Item 110, Excavation) that is disposed of outside a USACE evaluated area.

The total area disturbed for this project is 27.063 acres. The disturbed area in this project, all project locations in the Contract, and the Contractor project specific locations (PSLs), within 1 mile of the project limits, for the Contract will further establish the authorization requirements for storm water discharges. The Department will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown on the plans. The Contractor is to obtain required authorization from the TCEQ for Contractor PSLs for construction support activities on or off the ROW. When the total area disturbed in the Contract and PSLs within 1 mile of the project limits exceeds 5 acres, provide a copy of the Contractor NOI for PSLs on the ROW to the Engineer and to the local government that operates a separate storm sewer system.

Electrical certification for this project will be as per Item 7 of the current Texas Standard Specifications and any special provisions to Item 7.

Item 8. Prosecution and Progress

Working days will be computed and charged in accordance with Article 8.3.A.1 Five-Day Workweek.

Work performed during the nighttime shall be approved by the Engineer.

Item 100. Preparing Right of Way

Measurement for this item shall be along the centerline of the project with the limits of measurements as shown on the plans.

Removal of existing concrete pavement shall be in accordance with Item 104 except that this work will not be paid for directly, but will be considered subsidiary to Item 100.

Item 105. Removing Stabilized Base and Asphalt Pavement

Cement, lime, and/or lime fly-ash stabilized base material to be removed on this project shall become the property of the Contractor.

Item 110. Excavation

Cross sections for pay quantity determination of earthwork may be developed photogrammetrically.

Review proposed waste sites to determine if any site is located in a "Base Floodplain" or "Floodway" as defined by the Federal Emergency Management Agency (FEMA).

If waste material from this project is placed in a base floodplain as defined by FEMA, a permit will have to be obtained from the local community responsible for enforcing National Flood Insurance Program (NFIP) regulations. The Contractor is responsible for ensuring that the owner of the property receiving the waste has obtained the necessary permit.

Item 132. Embankment

Do not provide Type B embankment material with a Plasticity Index (PI) higher than 35.

When embankment is placed as a bridge header bank, test each lift for compliance with density requirements, near the center of each travel lane at the following locations:

1. At the “beginning of bridge” or “end of bridge” station (if abutment is on retaining wall, location may be adjusted by not more than 5 feet.)
2. At 25-foot intervals for a distance of 150 feet in advance of the “beginning of bridge” station.
3. At 25-foot intervals for a distance of 150 feet after the “end of bridge” station.

Density tests shall be conducted by a department-certified independent testing laboratory. Results of tests shall be furnished to TxDOT within 24 hours after testing; a final copy of all test reports shall be signed and sealed by a Professional Engineer in the State of Texas and

furnished within five (5) working days after testing. Areas which do not meet minimum density requirements shall be removed, re-compacted, and re-tested for compliance at the contractor's entire expense. Testing and reporting of test results will not be paid for directly, but will be considered subsidiary to this item.

At all locations where guardrail is shown to flare, widen the embankment as necessary to accommodate the guardrail.

Item 161. Compost

Place approximately 4" of compost manufactured topsoil (CMT) on all cut and fill slopes (except drainage channels where flexible channel liners are indicated), at other locations shown in the plans, and as directed.

Where "pre-blended" CMT is specified, amend suitable soil material, as determined by the Engineer, with 25% compost, by volume, to produce the compost manufactured topsoil. Place the compost manufactured topsoil in a loose layer approximately 4" thick, as shown in the plans.

Item 164. Seeding for Erosion Control

Apply seeding required between December 1 and January 31 using seed types and mixtures as shown in Item 164.2.A, Table 3. If, in the opinion of the Engineer, this does not provide an effective vegetative cover, apply "straw or hay mulch" as specified in Item 164.3.E as soon as possible. After February 1 apply warm season seeding in order to establish a permanent protective vegetative cover.

Item 166. Fertilizer

Fertilize all areas of project to be seeded or sodded.

Item 168. Vegetative Watering

Furnish and install an approved rain gauge at the project site, as directed. Furnishing and installation of the rain gauge will not be paid for directly, but will be considered subsidiary to Item 168.

Apply vegetative watering for an establishment period of thirteen weeks following application of seed or installation of sod, at a rate of ½" of water depth per week (approximately 13,030 gallons per acre). During the first four weeks after seeding, apply watering twice per week, on non-consecutive days, each at half the weekly application rate. For the remainder of the establishment period, apply vegetative watering once per week during the months of January through June or September through December, at the weekly application rate; apply watering twice per week, on

non-consecutive days during the months of July and August, each at one-half the weekly application rate.

Average weekly rainfall rates for the District are as follows:

January – 0.39"	April – 0.86"	July – 0.48"	October – 0.68"
February – 0.46"	May – 1.00"	August – 0.47"	November – 0.46"
March – 0.48"	June – 0.63"	September – 0.74"	December – 0.37"

Item 247. Flexible Base

(TY A, GR 4) Furnish crushed stone, gravel, or crushed gravel aggregate conforming to the following requirements:

Gradation:

Retained on Sieve Size	Percent (%) by Weight
1-3/4 in.	0 – 5
7/8 in.	5 – 35
No. 4	40 – 75
No. 40	65 – 85

Plasticity Index (PI)	12 max., 4 min.
Liquid Limit	45 max.
Wet Ball Mill	50 max.
Wet Ball Mill, % Increase Passing the No. 40	20 max.

Place material in two or more equal lifts unless otherwise directed.

Do not add field sand to modify the final material to meet the requirements.

Build and maintain a 5,000 CY stockpile of approved material before and during hauling operations.

Item 260. Lime Treatment (Road-Mixed)

Apply lime by the "slurry placement" method. Allow the mixture to mellow for a minimum of 4 days after initial mixing. If moderate sulfates are present, or for other extenuating circumstances as determined by the Engineer, allow the mixture to mellow for 7 days after initial mixing.

Except as noted below, treat the raw subgrade to a depth of 8".

Treat the raw subgrade with lime to a depth of 18" for:

- Fills equal to or greater than 18" – soil PI > 39
- Fills <18" – soil PI >29
- All cuts – soil PI > 29
- Any location directed by the Engineer

Item 275. Cement Treatment (Road-Mixed)

Apply cement for subgrade treatment by the "slurry placement" method.

Treat base or subgrade material with a maximum 4% cement by weight. The minimum 7-day compressive strength of treated material shall be 250 psi.

Treat flexible base for bridge approach slab foundation course with 2.4% cement by weight.

If the Contractor elects to plant-mix cement with the foundation course, mix in accordance with Articles 276.3 and 276.4.A. Place the mixture in accordance with Article 276.4.B and compact in accordance with Article 276.4.C.

Item 301. Asphalt Antistripping Agent

Furnish a liquid antistripping agent unless directed.

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Item 354. Planing and Texturing Pavement

All salvaged material will be the property of the contractor.

Item 360. Concrete Pavement

When using the Hardy Chair-Lok to support reinforcing steel, chair spacing may be increased to 1.67 SY per chair, placed in a diamond or square pattern. Do not exceed 60" longitudinal spacing.

The provisions of Article 360.6.B will not be a requirement and the pavement will not be cored.

Include the approved mix design number on each delivery ticket.

Item 400. Excavation and Backfill for Structures

Class "B" bedding will be permitted in lieu of Class "C" bedding.

Item 403. Temporary Special Shoring

Temporary shoring design shall take into account all external loading conditions including traffic surcharge, etc.

The Contractor may elect to remove all, or a portion of, the temporary shoring material. The removal must be effected in such a manner as not to disturb the retained soil or adjacent structures. Any portion of the temporary shoring left in place must be removed to minimum depth of two (2) feet below the finished subgrade or to four (4) feet below finished ground.

Item 421. Hydraulic Cement Concrete

For Class P and S Concrete Only: For concrete plants equipped with 2 aggregate bins and/or no calibrated metering system, blend manufactured and natural sand at the aggregate source only. For concrete plants equipped with a minimum of 3 bins and a calibrated metering system, blending of the separate sands on-site is permitted to meet gradation and AIR requirements.

The strength testing equipment for concrete will be capable of producing an electronic printout of the test results.

Air entrainment requirements are waived for all classes of concrete except all Class S and all Class P Concrete.

Concrete will not be rejected for low air content. Adjustment to the dosage of air entrainment will be as directed or allowed by the Engineer.

Include the approved mix design number on each delivery ticket.

Contractor personnel performing job-control (QC) testing on concrete must be ACI certified. Provide a copy of all personnel certification papers to the Engineer at the preconstruction meeting. The Engineer may require the Contractor's testers to provide the certification papers upon arrival and before testing at the job site. Furnish a hard copy of all testing equipment calibration reports at the preconstruction meeting when non-TxDOT equipment is used to test concrete. Furnish updated reports as equipment is calibrated through the project contract. The calibration frequency will match TxDOT's and will apply for each piece of equipment as follows:

Slump Cone - Annual
Air Meter - Every 3 months
Compression Tester - Annual
Beam breaker - Annual

The compression testing equipment for concrete will be capable of producing an electronic printout of the test results.

The Engineer may allow the use of local commercial laboratories under contract to provide these services. The previous requirements are required from the Commercial Laboratory prior to any work being performed.

Item 432. Riprap

Provide Class B Concrete for riprap.

The quantities for riprap at the location indicated may be varied to the extent necessary to ensure proper functioning for the purpose intended.

All concrete riprap shall be 5" (.42') in thickness, unless otherwise shown in the plans, and shall be reinforced.

An 8 inch (.67') by 18 inch (1.5') toewall will be required at the exposed edge of all concrete riprap, unless otherwise directed.

Item 462. Concrete Box Culverts and Storm Drains

Provide Shop Drawings, signed and sealed by a Licensed Professional Engineer, for all precast box culverts. Indicate the appropriate design load (HS20 or HS25) and the maximum design depth of fill.

If precast option is used, the first three (3) feet (minimum) of the culvert extension will be required to be cast-in-place.

Item 464. Reinforced Concrete Pipe

All bends and connections in pipe shall be prefabricated.

Item 465 – Manholes and Inlets

Excavation and backfill, frames, grates, rings and covers subsidiary to pertinent Items.

Item 466. Headwalls and Wingwalls

Do not use precast headwalls/wingwalls.

Use Class C concrete for headwalls or wingwalls

Item 502. Barricades, Signs, and Traffic Handling

Permanent signs may be installed when construction in an area is complete and they will not be in conflict with the traffic control plan for the remainder of the job.

Existing signs are to remain as long as they do not interfere with construction and they do not conflict with the traffic control plan.

Any sign not detailed in the plans but called for in the layout shall be as shown in the current "Standard Highway Sign Designs for Texas".

When traffic is obstructed, arrange warning devices in accordance with arrangements indicated in the latest edition of the "Texas Manual on Uniform Traffic Control Devices".

Cover or remove any work zone signs when work or condition referenced is not occurring.

The Contractor Force Account "Safety Contingency" that has been established for this project is intended to be utilized for work zone enhancements, to improve the effectiveness of the Traffic Control Plan, that could not be foreseen in the project planning and design stage. These enhancements will be mutually agreed upon by the Engineer and the Contractor's Responsible Person based on weekly or more frequent traffic management reviews on the project. The Engineer may choose to use existing bid items if it does not slow the implementation of enhancement.

Item 504. Field Office and Laboratory

Furnish the following structures for this project:

Type	No.
Field Office and Lab (Ty. B)	1

Field office will require at least a 3' by 3' landing on the outside of each exit door and a concrete landing at the bottom of exit stairs. The concrete landing shall be the width of the stairs and extend at least 4' in front of the bottom step.

Furnish a copier and facsimile meeting the requirements of DMS-10101, "Computer Equipment".

Furnish the following for the Field Office structure:

Item	No.
Desktop Microcomputer	1
Laserjet Printer	1

Internet Service with Wi/Fi Router	1
Water Cooler w/Hot and Cold Dispenser	1
Modern Microwave >=1 CF capacity	1
Modern Refrigerator >=19CF capacity	1
4 Drawer Locking File Cabinet	1
Weekly Janitorial Service	1

Desktop and Laptop Microcomputers shall have an Intel QuadCore (or equivalent) processor, or better.

Integrated printer/copier/scanner/fax units will be permitted (no inkjet).

Item 512. Portable Concrete Traffic Barrier

Traffic barrier for this item is in stockpile at the interchange of IH 20 and US 287 in Tarrant County. Applies only to slotted-end or lapped-end PCTB and Low Profile Barrier. (Note: Lapped-end PCTB to be used only if slotted-end PCTB is not available.)

Furnish barrier in compliance with Single-Slope Concrete Barrier (SSCB) and/or Low Profile Concrete Barrier (LPCB) standards as shown on the plans.

Class "H" Concrete furnished for this Item shall have a minimum 28 day compressive strength of 3600 PSI.

Provide the hardware assemblies to join barrier sections, including barrier from stockpile. Slotted joints require a welded tie bar assembly, as detailed on the PCTB standard detail sheet. Low Profile PCTB requires a 1¼" x 2'-2" threaded rod, two (2) 1 ¼" hex nuts, and two (2) standard USS washers, grade 5, for each section. Type 2 Low Profile Concrete Barrier sections (the sloped ends) will need seven (7) 1¼" diameter x 30" long anchor pins per section. Lapped-end PCTB requires a 1" x 1'- 4" threaded rod, two (2) 1" hex nuts, and two (2) 3" x 3" x ¼" plate washers.

Connection hardware will remain the property of the State upon completion of the project and will not be paid for directly, but considered subsidiary to Item 512. Deliver hardware to the location specified.

Delineate all barrier in accordance with Barricade and Warning Sign (BC) Standards. Barrier delineation will not be paid for directly, but will be subsidiary to this Item.

Replace any traffic barrier which, in the opinion of the Engineer, is damaged by the traveling public to the extent it is no longer serviceable, using traffic barrier from the designated stockpile site. The Contractor will be paid to remove and replace the traffic barrier damaged by the

traveling public. Return damaged traffic barrier to the stockpile site located at the interchange of IH 20 and US 287 in Tarrant County.

Items 530 And 531. Intersections, Driveways and Turnouts, and Sidewalks

The furnishing and installation of the sand cushion in the proposed sidewalks, sidewalk ramps and driveways will not be paid for directly but shall be considered subsidiary to this bid item.

Item 540. Metal Beam Guard Fence

The locations and lengths of guard fence shown on the plans are approximate. Actual lengths and locations are to be determined in the field.

The tops of timber posts shall be domed. Beveled tops will not be permitted for timber or steel posts.

When holes for timber posts are drilled below bottom of post elevation, backfill the excessive depth with an acceptable sand. The furnishing and installation of the sand backfill will not be paid for directly but shall be considered subsidiary to this Item.

When guardrail posts are placed in a finished surface, backfill the top 4 inches with an asphaltic material, domed to carry water away from the posts or as shown on the plans. The furnishing and installation of the asphaltic material backfill will not be paid for directly but shall be considered subsidiary to this Item.

Item 542. Removing Metal Beam Guard Fence

Remove existing metal beam guard fence only when authorized.

Item 545. Crash Cushion Attenuators

Remove salvageable units and stockpile as directed by Engineer.

Item 585. Ride Quality for Pavement Surfaces

Use Surface Test Type A to evaluate ride quality of travel lanes in accordance with Item 585, "Ride Quality for Pavement Surfaces."

Item 610. Roadway Illumination Assemblies.

For both transformer and shoe-base type illumination poles, provide double-pole breakaway fuse holder as shown on the Texas Department of Transportation (TxDOT) materials producers list.

Category is "Roadway Illumination and Electrical Supplies". Fuse holder is shown on list under Items 610 & 620. Provide 10 amp time delay fuses.

Furnish luminaires rated for operation at 480 volts.

Item 616. Performance Testing of Lighting Systems.

The Contractor shall provide thirty days' written notice to the engineer of his intent to start the test period for each service point and its related circuits.

Item 618. Conduit.

Bed all PVC conduit placed by open cut in field sand as approved.

Conduit for the ground rod at high mast poles shall be schedule 40 PVC.

Conduit bends at roadway illumination assembly foundations will not be paid for directly, but will be considered subsidiary to Item 416.

Use materials from prequalified material producers list as shown on the Texas Department of Transportation (TxDOT) materials producers list. Category is "Roadway Illumination and Electrical Supplies."

Where PVC, duct cable, and HDPE conduit 1" and larger is allowed and installed as per TxDOT standards, provide a PVC elbow in place of the galvanized rigid metal elbow required by the Electrical Detail standards. Ensure the PVC elbow is of the same schedule rating as the conduit to which it is connected.

Ensure only a flat, high tensile strength polyester fiber pull tape is used for pulling conductors through the PVC conduit system.

Items 624. Ground Boxes.

Upon completion of wiring work within the ground boxes that are not set in roadway pavement, the contractor shall place a 6 inch diameter washer or metallic object (with a minimum surface area of 0.15 square feet) inside each proposed ground box. Payment for this work will not be paid for directly but will be considered subsidiary to Bid Item 624. This is to assist others in locating the ground boxes more readily in the future.

Items 620, 624, & 628. Electrical Conductors, Ground Boxes & Electrical Services.

Attach an identification tag with the circuit identification stamped on the tag to the conductors for each circuit at all junction boxes and ground boxes. Identify the circuit breakers for each

circuit at the service box using identification tags for each breaker. Label each circuit as shown on the illumination layouts in the plans. Tags to be plastic.

All roadway illumination circuits are 240/480V/3 wire with the roadway luminaires operating at 480V. All roadway illumination circuit breakers are 2-pole.

Items 730, 734, 738 and 764. Roadside Mowing, Litter Removal, Cleaning and Sweeping Highways and Pump Station and Drainage System Cleaning

Mowing height shall be approximately 7 inches.

For this project, project maintenance shall be done at the following rates:

Mowing	4 cycles/year
Litter Pickup	1 cycle/month
Sweeping	1 cycle/month

These rates shall be adhered to unless permission to deviate is granted in writing by the Engineer. The work performed and materials furnished will not be paid for directly but will be subsidiary to various bid items.

Item 1122. Temporary Erosion, Sedimentation, and Environmental Controls

Remove accumulated sediment and/or replace SW3P controls when the capacity has been reduced by 50% or when the depth of sediment at the control structure exceeds one foot.

Item 3268. Dense-Graded Hot-Mix Asphalt

In Table 1, the Micro-Deval abrasion test is not required.

RAP aggregate must meet the requirements of Table 1.

Provide aggregate with a Surface Aggregate Classification (SAC) value of B.

Provide a PG70-22 asphalt for the surface course.

Provide a PG70-22 asphalt for the level-up course.

Provide a PG64-22 asphalt for the base course.

Provide a PG70-22 asphalt for the surface course when using fractionated RAP.

Provide the PG70-22 asphalt with any of the following modification alternatives:

* PG64-22 modified with SBS at the refinery
* PG64-22 modified with SBR Latex at the Hot Mix Plant.
* AC-10 modified with SBR Latex at the Hot Mix Plant.
* PG64-22 modified with Crumb Rubber and Vestenamer (TOR) at the Hot Mix Plant.

When the asphalt is modified at the Hot Mix Plant, provide the PG 64-22 or AC-10 refinery certification.

The additive rate for the SBS, SBR Latex, or the Crumb Rubber and Vestenamer will be based upon the quantity needed blended with the asphalt to produce the required asphalt grade shown above (PG 76-22 or PG 70-22).

Grade Substitution per Table 5 is not allowed when using any of the last 3 alternatives listed above.

Furnish a CSS-1P with greater than 50% asphalt residue for the tack coat on this project.

Use the following notes when using Warm Mix Asphalt (WMA):

Notify the District Pavement Design Engineer (Andrew V. Kissig, P.E., CFM; Andy.Kissig@txdot.gov) with the following information: 1) The Project's CSJ, 2) the application (Base, Surface, Shoulder Level-up…) with the corresponding lift thicknesses for those applications, and Mix Type (Type A, B, C, D…). Also provide the approximate Hot Mix tonnage used for those applications and the WMA additive process used (Evotherm DAT/G, SASOBIT, Rediset WMX, or Advera).

Use an Evotherm DAT Warm Mix Asphalt (WMA), or a SASOBIT WMA, or a Rediset WMX WMA, or an Advera WMA product additive for all mix applications. Use an approved metering device attached to the plant to measure and produce a recorded printout of the amount of WMA additive going into the mix. Delivery temperature shall be a maximum of 235° F. Delivery and roll out temperatures will be modified by the Supplier and accepted by the Engineer. All work related to WMA product additives is subsidiary to this item.

To produce an Evotherm WMA use Evotherm DAT or Evotherm 3G. Evotherm 3G is metered into the asphalt between 0.5% and 0.7% by total asphalt weight. Evotherm DAT, a chemical solution, is metered into the asphalt between 5.0% and 7.0% by total asphalt weight.

To produce a SASOBIT WMA, the mix production facility will receive SASOBIT from the solution supplier. SASOBIT is metered into the asphalt line at a rate of 1.5% by weight of total binder content.

To produce a Rediset WMX WMA, pre-blend with the asphalt or dose into the mixing drum via the RAP belt or port. Use 1.5% or 2.0% by weight of asphalt dependent upon the mix type.

To produce an Advera WMA, pre-blend with RAP or RAS, or dose into the mixing drum via the RAP belt or port. Use between 0.05% to 0.25% by weight of Advera WMA in the hot mix dependent upon the mix type and the supplier's recommendation.

An authorized representative of the WMA product additive supplier shall be present onsite during the first day of asphalt placement.

Only Department-owned RAP is to be used on this project. The stockpile locations are either SH199 at (Lake Worth Bridge) or at the SH360 & SH183 interchange. Contact the Maintenance Office at (817) 232-1304 with at least 72 hours advance notice, to coordinate the acquisition and accounting of the RAP material.

Substitute binders are not allowed on this project.

A pre-paving meeting with the Engineer is required for this project.

Target laboratory molded density is 97.0%.

Use the Boil Test, Test Procedure Tex-530-C, and provide only mixes that produce zero percent (0%) stripping for design verification and during production.

For Table 10, the Minimum Number of Passes required for each High-Temperature Binder Grade is reduced by 5,000 passes.

Include the approved mix design number on each delivery ticket.

Use a Mechanical Transfer Device (MTD) unless otherwise directed by the Engineer.

Shoulders, ramps, crossovers, and other areas listed on the Plan sheets or as directed by the Engineer are not subject to in-place air void determination for this project.

Temporary detours are subject to in-place air void determination for this project.

Production is exempt for this project.

Project Number: STP 2013(901) **Sheet:**

County: TARRANT **Control:** 2079-01-041

Highway: FM 1220

Use Surface Test Type A for this project.

Item 6834. Portable Changeable Message Signs

All portable changeable message signs and arrow panels are to be provided with a photoelectric device to allow for automatic dimming of operations to approximately 50% of their normal brightness when ambient light drops to approximately five footcandles, and then increase back again for daytime operations.

Two electronic portable changeable message sign unit(s) will be required. Individual or collective use of signs will be required by Engineer when deemed necessary to supplement the traffic control plan.

Each sign shall be programmed in its permanent memory the following 15 messages:

1. Use Other Routes
2. Right Lane
3. Left Lane
4. Closed Ahead
5. Detour Ahead
6. Thru Traffic
7. Prepare To Stop
8. Merging Traffic
9. Expect 15 Minute Delay
10. Max Speed ** MPH
11. Merge Right
12. Merge Left

Item 8251. Reflectorized Pavement Markings with Retroreflective Requirements

Collection of retro-reflectivity readings using a mobile retro-reflectometer is the preferred method. If retro-reflectivity readings are collected using a portable/handheld unit, then measurement is defined as a collective average of at least 20 readings taken along a 200-foot test section. A minimum of three measurements will be required per mile of roadway. Measurements collected on a centerline stripe will be averaged separately for stripe in each direction of travel. A TxDOT inspector must witness the calibration and collection of all retro-reflectivity data.

CONTROL : 2079-01-041
PROJECT : STP 2013(901)
HIGHWAY : FM 1220
COUNTY : TARRANT

TEXAS DEPARTMENT OF TRANSPORTATION

GOVERNING SPECIFICATIONS AND SPECIAL PROVISIONS

ALL SPECIFICATIONS AND SPECIAL PROVISIONS APPLICABLE TO THIS PROJECT ARE IDENTIFIED AS FOLLOWS:

STANDARD SPECIFICATIONS: ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION JUNE 1, 2004. STANDARD SPECIFICATIONS ARE INCORPORATED INTO THE CONTRACT BY REFERENCE.

ITEMS 1 TO 9 INCL., GENERAL REQUIREMENTS AND COVENANTS
ITEM 100 PREPARING RIGHT OF WAY (103)
ITEM 110 EXCAVATION (132)
ITEM 132 EMBANKMENT (100)(204)(210)(216)(400)
ITEM 161 COMPOST (160)
ITEM 164 SEEDING FOR EROSION CONTROL (162)(166)(168)
ITEM 168 VEGETATIVE WATERING
ITEM 260 LIME TREATMENT (ROAD-MIXED) (105)(132)(204)(210)(300)(310)(520)
ITEM 310 PRIME COAT (300)(316)
ITEM 351 FLEXIBLE PAVEMENT STRUCTURE REPAIR (132)(204)(247)(260)(263)(275)(276)(292)(310)(316)(330)(334)(340)
ITEM 354 PLANING AND TEXTURING PAVEMENT
ITEM 403 TEMPORARY SPECIAL SHORING (423)
ITEM 416 DRILLED SHAFT FOUNDATIONS (420)(421)(440)(448)
ITEM 432 RIPRAP (247)(420)(421)(427)(431)(440)
ITEM 459 GABIONS AND GABION MATTRESSES
ITEM 462 CONCRETE BOX CULVERTS AND STORM DRAINS (400)(420)(421)(424)(440)(464)(476)
ITEM 464 REINFORCED CONCRETE PIPE (400)(476)
ITEM 465 MANHOLES AND INLETS (400)(420)(421)(440)(471)
ITEM 466 HEADWALLS AND WINGWALLS (400)(420)(421)(430)(440)(464)
ITEM 467 SAFETY END TREATMENT (400)(420)(421)(430)(432)(440)(445)(460)(464)
ITEM 496 REMOVING STRUCTURES (430)
ITEM 500 MOBILIZATION
ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING
ITEM 504 FIELD OFFICE AND LABORATORY
ITEM 508 CONSTRUCTING DETOURS
ITEM 512 PORTABLE CONCRETE TRAFFIC BARRIER (420)(421)(424)(440)

(442)
ITEM 529 CONCRETE CURB, GUTTER, AND COMBINED CURB AND GUTTER (360) (420)(421)(440)
ITEM 530 INTERSECTIONS, DRIVEWAYS, AND TURNOUTS (247)(260)(263) (275)(276)(292)(316)(330)(334)(340)(360)(421)(440)
ITEM 531 SIDEWALKS (104)(360)(420)(421)(440)(530)
ITEM 540 METAL BEAM GUARD FENCE (421)(441)(445)(529)(542)(544)
ITEM 544 GUARDRAIL END TREATMENTS
ITEM 545 CRASH CUSHION ATTENUATORS (421)
ITEM 560 MAILBOX ASSEMBLIES
ITEM 610 ROADWAY ILLUMINATION ASSEMBLIES (420)(421)(441)(442)(445) (446)(449)(616)(620)
ITEM 618 CONDUIT (400)(445)(476)(622)
ITEM 620 ELECTRICAL CONDUCTORS
ITEM 624 GROUND BOXES (420)(421)(432)(440)(618)(620)
ITEM 644 SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES (421)(440) (441)(442)(445)(634)(636)(643)(656)
ITEM 658 DELINEATOR AND OBJECT MARKER ASSEMBLIES (445)
ITEM 662 WORK ZONE PAVEMENT MARKINGS (666)(668)(672)(677)
ITEM 666 REFLECTORIZED PAVEMENT MARKINGS (316)(318)(662)(677)(678)
ITEM 672 RAISED PAVEMENT MARKERS (677)(678)
ITEM 677 ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS (300) (302)(316)
ITEM 685 ROADSIDE FLASHING BEACON ASSEMBLIES (441)(442)(445)(449) (656)(687)(4003)

SPECIAL PROVISIONS: SPECIAL PROVISIONS WILL GOVERN AND TAKE PRECEDENCE OVER THE SPECIFICATIONS ENUMERATED HEREON WHEREVER IN CONFLICT THEREWITH.

REQUIRED CONTRACT PROVISIONS, FEDERAL-AID CONSTRUCTION CONTRACTS (FORM FHWA 1273, MAY, 2012)
WAGE RATES
SPECIAL PROVISION "NOTICE TO ALL BIDDERS" (000---003)
SPECIAL PROVISION "NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY" (000---004)
SPECIAL PROVISION "STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS" (000---006)
SPECIAL PROVISION "CERTIFICATION OF NONDISCRIMINATION IN EMPLOYMENT" (000---009)
SPECIAL PROVISION "DEPARTMENT DIVISION MAILING AND PHYSICAL ADDRESS" (000---011)
SPECIAL PROVISION "NOTICE OF CHANGES TO U.S. DEPARTMENT OF LABOR REQUIRED PAYROLL INFOMATION" (000--1483)
SPECIAL PROVISION "ON-THE-JOB TRAINING PROGRAM" (000--1676)
SPECIAL PROVISION "DISADVANTAGED BUSINESS ENTERPRISE IN FEDERAL AID CONTRACTS" (000--1966)
SPECIAL PROVISION "PARTNERING" (000--2329)
SPECIAL PROVISION "SCHEDULE OF LIQUIDATED DAMAGES" (000--2332)
SPECIAL PROVISION "NONDISCRIMINATION" (000--2607)
SPECIAL PROVISION "IMPORTANT NOTICE TO CONTRACTORS" (000--2711)
SPECIAL PROVISION "IMPORTANT NOTICE TO CONTRACTORS" (000--2777)

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SPECIAL PROVISION  TO ITEM     1  (001---015)
SPECIAL PROVISION  TO ITEM     2  (002---017)
SPECIAL PROVISION  TO ITEM     3  (003---033)
SPECIAL PROVISION  TO ITEM     4  (004---017)
SPECIAL PROVISION  TO ITEM     5  (005---004)
SPECIAL PROVISIONS TO ITEM     6  (006---030)(006---047)
SPECIAL PROVISION  TO ITEM     7  (007---918)
SPECIAL PROVISIONS TO ITEM     8  (008---009)(008---119)
SPECIAL PROVISIONS TO ITEM     9  (009---009)(009---015)
SPECIAL PROVISION  TO ITEM   100  (100---002)
SPECIAL PROVISION  TO ITEM   161  (161---006)
SPECIAL PROVISION  TO ITEM   164  (164---002)
SPECIAL PROVISION  TO ITEM   166  (166---001)
SPECIAL PROVISION  TO ITEM   247  (247---033)
SPECIAL PROVISION  TO ITEM   260  (260---003)
SPECIAL PROVISION  TO ITEM   275  (275---003)
SPECIAL PROVISION  TO ITEM   300  (300---039)
SPECIAL PROVISION  TO ITEM   316  (316---016)
SPECIAL PROVISION  TO ITEM   318  (318---010)
SPECIAL PROVISION  TO ITEM   330  (330---001)
SPECIAL PROVISION  TO ITEM   360  (360---003)
SPECIAL PROVISION  TO ITEM   416  (416---001)
SPECIAL PROVISION  TO ITEM   420  (420---002)
SPECIAL PROVISION  TO ITEM   421  (421---035)
SPECIAL PROVISION  TO ITEM   424  (424---003)
SPECIAL PROVISION  TO ITEM   431  (431---001)
SPECIAL PROVISION  TO ITEM   440  (440---006)
SPECIAL PROVISION  TO ITEM   441  (441---008)
SPECIAL PROVISION  TO ITEM   442  (442---016)
SPECIAL PROVISION  TO ITEM   448  (448---002)
SPECIAL PROVISION  TO ITEM   462  (462---015)
SPECIAL PROVISION  TO ITEM   464  (464---006)
SPECIAL PROVISION  TO ITEM   465  (465---001)
SPECIAL PROVISION  TO ITEM   476  (476---003)
SPECIAL PROVISION  TO ITEM   500  (500---011)
SPECIAL PROVISION  TO ITEM   502  (502---033)
SPECIAL PROVISION  TO ITEM   512  (512---002)
SPECIAL PROVISION  TO ITEM   530  (530---006)
SPECIAL PROVISION  TO ITEM   540  (540---031)
SPECIAL PROVISION  TO ITEM   560  (560---001)
SPECIAL PROVISION  TO ITEM   610  (610---015)
SPECIAL PROVISION  TO ITEM   620  (620---001)
SPECIAL PROVISION  TO ITEM   624  (624---014)
SPECIAL PROVISION  TO ITEM   636  (636---014)
SPECIAL PROVISION  TO ITEM   643  (643---001)
SPECIAL PROVISION  TO ITEM   672  (672---034)
SPECIAL PROVISION  TO ITEM   685  (685---014)
SPECIAL PROVISION  TO ITEM   687  (687---004)
SPECIAL PROVISION  TO SPECIAL SPECIFICATION ITEM  1122  (1122--001)
SPECIAL PROVISION  TO SPECIAL SPECIFICATION ITEM  6834  (6834--002)
SPECIAL PROVISION  TO SPECIAL SPECIFICATION ITEM  8251  (8251--005)


SPECIAL SPECIFICATIONS:
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ITEM 1122 TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS (161)(432)(556)
ITEM 3214 INJECTION OF LATEX INTO ASPHALT BINDER
ITEM 3268 DENSE-GRADED HOT-MIX ASPHALT (300)(301)(320)(520)(585)(3214)
ITEM 4003 SCREW-IN TYPE ANCHOR FOUNDATIONS
ITEM 6834 PORTABLE CHANGEABLE MESSAGE SIGN
ITEM 8251 REFLECTORIZED PAVEMENT MARKINGS WITH RETROREFLECTIVE REQUIREMENTS (316)(318)(502)(677)(678)

GENERAL: THE ABOVE-LISTED SPECIFICATION ITEMS ARE THOSE UNDER WHICH PAYMENT IS TO BE MADE. THESE, TOGETHER WITH SUCH OTHER PERTINENT ITEMS, IF ANY, AS MAY BE REFERRED TO IN THE ABOVE-LISTED SPECIFICATION ITEMS, AND INCLUDING THE SPECIAL PROVISIONS LISTED ABOVE, CONSTITUTE THE COMPLETE SPECIFICATIONS FOR THIS PROJECT.